

The invention now being fully described, it will be apparent to one of ordinary skill in the art that many changes and modifications can be made thereto without departing from the spirit or scope of the appended claims.

5 WHAT IS CLAIMED IS:

1. A pharmaceutical composition for the treatment of vascular, inflammatory and immune disorders in a mammal, said pharmaceutical composition comprising at least one alkyl halide.
2. The pharmaceutical composition according to Claim 1, wherein said
10 alkyl halide is selected from the group consisting of haloalkanes and haloalkenes having from one to four carbon atoms and at least two halogen substitutions.
3. The pharmaceutical composition according to Claim 1, wherein said alkyl halide comprises a dihalomethane.
4. The pharmaceutical composition according to Claim 3, wherein said
15 dihalomethane is methylene chloride.
5. The pharmaceutical composition according to Claim 1, wherein said alkyl halide comprises a trihalomethane.
6. The pharmaceutical composition according to Claim 5, wherein said trihalomethane is selected from the group consisting of iodoform and bromoform.
7. A method for extending the survival of an organ transplant in a
20 recipient, said method comprising:
 administering to said recipient a therapeutic amount of an alkyl halide, whereby the survival time of said organ transplant is extended.
8. A method for inhibiting the production of an inflammatory cytokine
25 protein by cells capable of producing said inflammatory cytokine protein, said method comprising:
 combining said cells with a therapeutic amount of an alkyl halide, whereby production of said inflammatory cytokine by said cells is inhibited.
9. A method for inhibiting an inflammatory response in a mammal, said
30 method comprising:
 contacting said mammal with a therapeutic amount of an alkyl halide, whereby said inflammatory response is inhibited.

10. The method according to Claim 7, wherein said inflammatory response is associated with multiple sclerosis, septic shock, rheumatoid arthritis, Crohn's disease, colitis or ischemia/reperfusion injury.

5 11. A method for inhibiting vascular smooth muscle cell proliferation, said method comprising:

contacting said mammal with a therapeutic amount of an alkyl halide, whereby said VSMC proliferation is inhibited.

12. A method for inhibiting neointimal formation after vascular injury, said method comprising:

10 contacting said mammal with a therapeutic amount of an alkyl halide, whereby the formation of said neointima is inhibited.

13. The method according to any one of Claims 7 to 12, wherein said alkyl halide is a haloform.

15 14. The method according to Claim 13, wherein said haloform is selected from the group consisting of iodoform and bromoform.

15. The method according to any one of Claims 7 to 14, wherein said therapeutic amount is sufficient to increase the blood carboxyhemoglobin level of said mammal to between about 1 and 10 %.